

REMARKS

Claims 1-20 are all the claims pending in the application. New claims 14-20 directed to a battery comprising a partially crosslinked adhesive is supported on the porous film have been added.

Entry of the above amendments is respectfully requested.

I. Response to Rejection of Claims 1, 2, 4, 6 and 8 under 35 U.S.C. § 102(b)

Claims 1, 2, 4, 6 and 8 are still rejected under 35 U.S.C. §102(b) as allegedly being anticipated by JP 10-183085 ("JP '085").

Applicants respectfully traverse the rejection for the reasons of record and the following additional reasons.

The Examiner asserts that the preamble of the claims are not given patentable weight. However, "[i]f the claim preamble, when read in the context of the entire claim, recites limitations of the claim, or, if the claim preamble is 'necessary to give life, meaning, and vitality' to the claim, then the claim preamble should be construed as if in the balance of the claim." *Pitney Bowes, Inc. v. Hewlett-Packard Co.*, 182 F.3d 1298, 1305, 51 USPQ2d 1161, 1165-66 (Fed. Cir. 1999). See MPEP § 2111.02. Further, "any terminology in the preamble that limits the structure of the claimed invention must be treated as a claim limitation" (emphasis added). See MPEP § 2111.02(I). In this case, it is respectfully submitted that the recitation of a battery separator is a structural element recited in the preamble of the claim and this element gives the claim life and meaning.

For example, in *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951), the preamble reciting "An abrasive article" was deemed essential to point out the invention defined by claims to an article comprising abrasive grains and a hardened binder and the process of making it. The court stated "it is only by that phrase that it can be known that the subject

matter defined by the claims is comprised as an abrasive article. Every union of substances capable *inter alia* of use as abrasive grains and a binder is not an 'abrasive article.'" Therefore, the preamble served to further define the structure of the article.

Similarly in the present case, it is by the phrase "battery separator" in the present claims that it can be known that the subject matter defined by the claims is comprised as a battery separator and that every union of an adhesive layer and porous film is not a battery separator.

In addition, it is respectfully submitted that the presence of the tackifier (binder of JP '085) would have a negative effect on the claimed invention.

In the case where a tackifier is used in a battery cell as a separator, since a polar solvent is used as an electrolyte, a side reaction occurs due to the tackifier, which is a low molecular component. Thus, a tackifier is not used in the present invention and is excluded from claim 1.

The Examiner further asserts that Applicants have not shown how the presence of a binder affects the "basic and novel characteristics" of the claimed invention.

Accordingly, a Declaration under 37 C.F.R. § 1.132 is submitted herewith to demonstrate the negative effect a tackifier would have on the claimed invention (an executed Declaration will be submitted in due course). As can be seen from the Declaration, batteries were prepared using electrolytes containing a tackifier and not containing a tackifier. The batteries containing electrolytes including a tackifier exhibited a faster degradation in discharge capacity as compared to a battery containing an electrolyte having no tackifier.

Furthermore, the JP '085 does not disclose "partial crosslinking". As noted previously, the disclosure cited by the Examiner on page 12 of the specification corresponds to the formation of the partially crosslinked adhesive (i.e., in Example 1 of the present invention,

the adhesive is partially crosslinked by being placed in a thermostat at 50°C for 7 days) and not to the complete crosslinking step (i.e., in Example 1, the partially crosslinked adhesive is then placed in a thermostat at a temperature of 50°C for an additional 7 days to complete the crosslinking). Thus, the lack of the teaching of the second step in JP '085 shows that the adhesive of JP '085 is not partially crosslinked since the second step in Example 1 does not merely complete the step of partial crosslinking.

In sum, for at least the above reasons, it is submitted that JP '085 does not disclose, teach or suggest claim 1 and that claim 1 is patentable over the cited art.

Claims 2, 4, 6, and 8 depend, directly or indirectly, from claim 1, and thus, it is respectfully submitted that these claims are patentable for at least the same reasons as claim 1.

In view of the above, withdrawal of the rejection is respectfully requested.

II. Response to Rejection of Claim 7 under 35 U.S.C. § 103(a)

Claim 7 is rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over JP '085.

Applicants respectfully traverse the rejection.

Initially, it is submitted that claim 7 depends from claim 1, and thus is patentable over JP '085 for at least the same reasons as claim 1.

Additionally, regarding the Official Notice, with respect to the function of a battery, it is submitted that it is preferable that the supporting ratio of an adhesive is lower, but rather the contrary is preferable when adhesion to a battery is considered. Thus, the Examiner's statement is overbroad and generalized, and not consistent with Applicants' comments. In addition, it was argued that Applicants do not agree that it is common or well known to reduce adhesive surface coverage when adhesion to a battery is considered.

In addition, whether the preamble is given patentable weight or not, whether something is common or well known should be considered based on the particular field of art.

In view of the above, withdrawal of the rejection is respectfully requested.

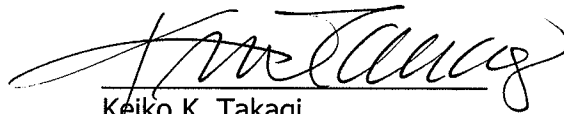
III. Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-20 is respectfully requested.

If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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